



PP/1-22810

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF  
JEAN-JACQUES DONZÉ ET AL.

SERIAL NO. 10/537,062

FILED: JUNE 1, 2005

FOR: Mixtures of Fluorescent Whitening Agents

Group Art Unit: 1709

Examiner: HEVEY, JOHN A.

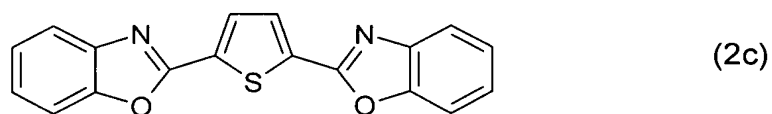
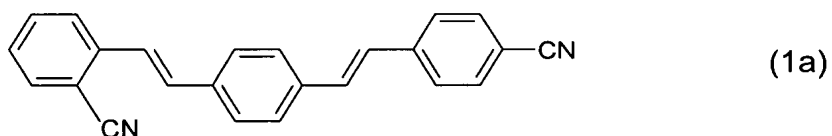
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DECLARATION UNDER RULE 132

I, Jean-Jacques Donzé, a citizen of France, residing in F-68740 Blodelsheim, France, hereby declare:

1. That I have studied Chemistry at the Université de Haute-Alsace, Mulhouse, France, and have been awarded the degree of a Doctor in 1973.
2. That I have been employed at the Textile Research Center in Mulhouse from 1975 to 1987.
3. That I have been employed by Ciba-Geigy AG Basel, Switzerland, in January 1988, later Ciba Specialty Chemicals Inc. and Huntsman, as Chemist in the marketing of textile effects and since June 2007 in Research and Application Technology of textile effects at Huntsman.
4. That I have been engaged in application technology of fluorescent whitening agents.
5. That I am a co-inventor of U.S. Patent Application Serial No. 10/537,062 to Jean-Jacques Donzé et al. and that I am familiar with the subject matter thereof.
5. That the experiments described in the following have been made under my supervision.

### Tested Fluorescent Whitening Agents (FWA):



### Testing Conditions:

A polyester fabric (prescourd, heat-set at 195°C, 165 g/m<sup>2</sup>) is treated in a dyeing apparatus at room temperature and at a liquor ratio of 1:20 with an aqueous bath containing a mixture of the fluorescent whitening agents of formula (1a) and (2c) in the ratios given in Table 1 and in the presence of 1 g/l of a fatty alcohol polyglycol ether as dispersing agent. The temperature is raised from room temperature to 130°C over 30 minutes, held for a further 30 minutes at this temperature and subsequently cooled to 40°C during 15 minutes. The textile material is then rinsed for 30 seconds under running water and dried at 70°C. The Ganz whiteness, tint value and light fastness (according to ISO 105- B02) is measured. The results are summarized in Table 1.

Table 1:

Example	Mixture of FWA	Amount	Ganz Whiteness	Tint Value	Light Fastness
A <sup>a)</sup>	33 % (1a) 67 % (2c)	0.12 %	215	2.2	6-7
B <sup>b)</sup>	17 % (1a) 83 % (2c)	0.12 %	213	1.9	7

a) Comparison Example according to U.S. 4,778,623 (Examples 20/22).

b) Example according to the invention.

### Discussion of Results:

The obtained results show that Example B according to the invention clearly shows several advantages in comparison to the known Example A. The Ganz whiteness is very similar in Examples A and B. However, Example B shows a clearly less greenish effect with a tint value below 2.0. A greenish shade is seen as a clear disadvantage by textile finishers. Additionally, Example B according to the invention shows a clearly better light fastness. The results are surprising and could not be expected.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 1<sup>st</sup> day of November, 2007



Jean-Jacques Donzé